

City of Glendale – West Area Aquifer Recharge Facility
Aquifer Protection Permit No. P-103611
Place ID 9765, LTF No. 72784
Significant Amendment

I. Introduction:

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an Aquifer Protection Permit (APP) for the subject facility that covers the life of the facility, including operational, closure, and post-closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards (AWQS) at the Point of Compliance (POC); and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

II. Permittee & Facility Location:

City of Glendale
11719 West Glendale Avenue, Glendale
Arizona 85307

III. Facility Description:

The permittee is authorized to operate West Area Aquifer Recharge Facility (Recharge Facility) with a recharge capacity of 11.5 million gallon per day (mgd). The Recharge Facility receives denitrified effluent from the Glendale West Area Water Reclamation Facility (WRF) #103580 to the recharge site. The effluent is disposed by a combination of recharge basins, seepage trenches and vadose zone recharge wells (VZRWs).

IV. Amendment Description:

The purpose of this Significant Amendment is to complete the following:

- Modify monitoring and reporting requirements;
- Reduce the number of parameters for groundwater monitoring, and the frequency of sampling and reporting;
- Reduce the frequency of water level monitoring and reporting;
- Rename PZ-6 to Landfill well MW-5;
- Replace Landfill well MW-6 with Landfill well MW-6R because MW-6 had to be abandoned as part of the landfill expansion;
- Remove the Landfill North Cell as a monitoring point because Landfill Well MW-6R is located within 200 feet of the future north cell;
- Update the permit language to current framework; and
- Update the closure and post-closure costs for sampling and well abandonment costs.

The reduction in monitoring frequency makes this a significant amendment as per A.A.C. R18-9-A211(B)(4).

V. Regulatory Status:

The facility is currently in compliance with the permit.

VI. Best Available Demonstrated Control Technology (BADCT):

The effluent is disposed by a combination of recharge basins, seepage trenches and VZRWs. There are five recharge basins extending from north to south. Each basin, except the southern-most basin, is further divided into sub-basins resulting in a total of 13 sub basins and covering a total area of 22.25 acres. There are five seepage trenches which are 150 feet long, two feet wide and sixteen feet deep. These trenches are located on the western side of the recharge basins. There are a total of five vadose zone recharge wells. Two VZRWs are located just east of the basin # 3C. VZRW # 1 is 158 feet deep and VZRW # 2 is 118 feet deep. Both wells are constructed of 18 inch diameter PVC in a 48 inch diameter bore hole. In addition, there are three nested VZRWs located in basin # 4B, which are designated as BRW-1 through BRW-3. Each of these VZRWs is constructed in a 48 inch bore hole, with two 4" PVC pipes extending to a depth of 48 feet and one pipe going to depth of 110 feet.

VII. Compliance with Aquifer Water Quality Standards (AWQS):

The Pollutant Management Area (PMA) and the Discharge Impact Area (DIA) have not been affected by this Significant Amendment request.

Monitoring and Reporting Requirements

Groundwater monitoring is required at four POC well(s) to ensure compliance with AWQS. The POC well(s) is/are downgradient of the discharging facilities and serve to provide ADEQ with groundwater quality data. ADEQ uses groundwater quality data to make regulatory and enforcement decisions.